ling trippers are either propelled by hand or are automatically traversed backwards and forwards between any desired limiting points on the conveyor length. The automatic tripper is operated by gearing actuated by the conveying belt itself, so that no separate driving mechanism is required. With the automatic tripper the coal is evenly discharged, as the tripper moves backwards and forwards along the length of its track and requires no attendance.

In the arrangement shown in fig. 8, where the belt elevator is fed from a bucket elevator, it will be seen that the coal is automatically discharged in small quantities on to the belt, and that no special precautions need be taken

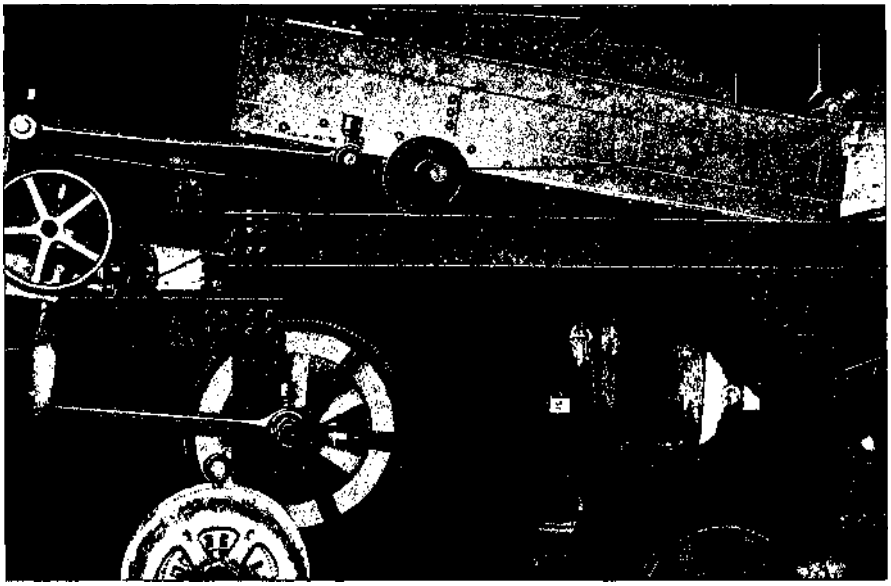

Fig. 18.—Shaking Belt Feeder

to ensure uniform loading of the belt. When feeding a belt from a storage bunker or coal-receiving hopper, however, it is necessary to provide means for controlling the flow of coal on to the belt.

It will be appreciated that the wear of the belt, due to the abrasion of the coal, is caused by the dropping of the coal upon the belt at the feeding-on point, as elsewhere on the belt the coal simply lies on the belt and is carried forward.

It is, therefore, important that the feeding arrangements are such that a minimum amount of abrasion of the belt takes place, and to obtain these conditions the coal must be fed uniformly and should fall on to the belt in theMirection of its travel with as little shock as possible.

Several types of belt conveyor feeders are used, among which may be mentioned the shaking feeder and the roll feeder.

In all cases the feeding device is designed to give a uniform flow of coal